

Application No. 10/798,389  
Amendment dated January 31, 2006

Docket No.: 4799-0112P

Please Amend the Specification as follows:

[004] As illustrated in Fig. 4, the ~~The~~ '358 patent reduces original crosstalk in a modular jack 60 of a connector that receives a plug. The jack 60 includes a PCB 600 with conductors placed on the PCB layers. The original crosstalk between the conductors (jackwires 61) of the jack 60 is reduced or compensated for by adding a fabricated (compensation) crosstalk at two compensation stages ~~and~~ thereby canceling the ~~crosstalks~~ crosstalk in the plug-jack combination. The compensation crosstalk is created by placing capacitors on the PCB layers and providing crossed-over conductors at different locations (stages) on the PCB layers.

[007] The present invention overcomes the problems and limitations of the related art crosstalk compensation devices (Fig. 4). Particularly, the present invention (Fig. 5) provides a crosstalk compensating PCB 10 having some layer(s) made of a high dielectric constant (DK) material and other layers made of a low DK material. Then the crosstalk compensating capacitors are made to reside at those layers with the high DK material, while other electronic components are made to reside at the layers with the low DK material. This provides the PCB that maximizes the compensating capacitance per unit area while minimizing signal transmission delays.

Application No. 10/798,389  
Amendment dated January 31, 2006

Docket No.: 4799-0112P

[010] Fig. 2 is a cross-sectional view of a crosstalk compensating PCB according to a second embodiment of the present invention; ~~and~~

[011] Fig. 3 is a cross-sectional view of a crosstalk compensating PCB according to a third embodiment of the present invention;

[011.1] Fig. 4 is a perspective view of a modular connector, in accordance with the related art; and

[011.2] Fig 5 is a perspective view of a modular connector, in accordance with the present invention.